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ABSTRACT

One hundred elementary school teachers were surveyed to assess: their perceptions of the prevalence of intrinsically- and extrinsically-oriented work incentives in their schools; their perceptions of the prevalence of aversive work conditions in their schools; and their commitment to teaching. Analysis of the data revealed that: (1) the perception of the prevalence of intrinsically-oriented work incentives and perception of aversive conditions in the workplace were powerful predictors of commitment to teaching, while the perception of the prevalence of extrinsically-oriented incentives was not; (2) overall, the respondents expressed greater intrinsic motivation than extrinsic; and (3) respondents who were predominantly intrinsically motivated expressed a slightly higher degree of commitment to teaching than did respondents who were predominantly extrinsically motivated. Professional incentive efforts need to address the intrinsically motivated goals of teachers, while de-emphasizing the use of extrinsically-oriented work incentives. However, in light of the additional effects of perceived aversive work conditions, it is recommended that, to more fully account for teacher commitment, the teacher work incentive position be expanded to include the effects of aversive conditions in the workplace. (Author/JD)

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Test of a Three-Factor Model of Teacher Commitment

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Abstract

One hundred elementary school teachers were surveyed to assess (1) their perceptions of the prevalence of intrinsically- and extrinsically-oriented work incentives in their schools, (2) their perceptions of the prevalence of aversive work conditions in their schools and (3) their commitment to teaching. Analysis of the data revealed that (1) the perception of the prevalence of intrinsically-oriented work incentives and the perception of aversive conditions in the workplace were powerful predictors of commitment to teaching, while the perception of the prevalence of extrinsically-oriented incentives was not; (2) overall, the respondents expressed greater intrinsic motivation than extrinsic; and (3) respondents who were predominantly intrinsically motivated expressed a slightly higher degree of commitment to teaching than respondents who were predominantly extrinsically motivated.

The outcomes were interpreted as supportive of Mitchell's & Peters' (1988) Teacher Work Incentive position. This position holds that professional incentive efforts need to address the intrinsically motivated goals of teachers, while de-emphasizing the use of extrinsically-oriented work incentives. However, in the light of the additional effects

Teacher Commitment

of perceived aversive work conditions, it was recommended that, to more fully account for teacher commitment, the Teacher Work Incentive position be expanded to include the effects of aversive conditions in the workplace.

The Relationship Between Intrinsically-Oriented Work
Incentives, Extrinsically-Oriented Work Incentives,
Aversive Work Conditions and Teacher Commitment

In recent years, public officials and educational leaders have expressed an increased desire to insure the commitment of teachers to their work. Shanker (1985) cited two major reasons for this heightened concern: (1) a serious teacher shortage-- particularly in such subject areas as mathematics, science and foreign languages-- which makes it necessary to improve the attractiveness of the field for prospective teachers; and (2) the need to improve the morale and effectiveness of teachers already in the field.

Theoretical Underpinnings

Various methods have been tried for increasing and maintaining teacher commitment to teaching, including more demanding certification standards, incentive pay and increased accountability. However, in spite of such measures, teacher shortages and low teacher morale continue to pose major problems in this area (Darling-Hammond, 1988).

Recently, workers have shown a renewed interest in certain motivational aspects of teaching as promising targets for study. As early as 1932, Waller suggested that the most rewarding incentives for teachers are intrinsic, and

lately a number of theorists (Jackson, 1968; Lortie, 1975) have echoed this view. One of the theoretically more detailed models generated by this school is that of Mitchell & Peters (1988). Following on the footsteps of Waller (1932) and Jackson (1968), they proposed a frame of reference for examining intrinsically- and extrinsically-oriented teacher motivation efforts. This frame of reference appears in Table 1. In this table, the columns represent target levels for conveying rewards to teachers. At the most immediate level, rewards are conveyed to individual instructors; at a less immediate level, rewards are conveyed to collegial groups of workers; and at the least immediate level, rewards are conveyed to formal organizational groups such as schools and entire districts.

The two less immediate target levels contained in Table 1 are necessary distribution alternatives, since it is often not possible to convey rewards to teachers on an individual basis:

Consider, for example, the excitement and satisfaction generated when teachers find themselves working with an interesting group of colleagues who share their educational values and

provide a warm supportive environment in which to work. This type of reward cannot be made available to one teacher without at least some others having the opportunity to share in it (p. 77).

Table 1 also contains four areas of teaching where incentives can be used to great effect: enlarging job definitions, more effective recruitment and retention, professional development and accountability of teaching results. The intersections between these four incentive areas and the three levels of reward conveyance described above form the Teacher Work Incentive model proposed by Mitchell & Peters (1988). These intersections, or cells, contain specific incentives that address intrinsic (I) and extrinsic (E) interests of teachers.

Referring to this model, the authors proposed that teachers are for the most part intrinsically motivated-- and that therefore, efforts to increase teacher commitment should concentrate on satisfying the intrinsically motivated goals characterizing this population. They stated,

Targeted use of scarce resources will be more effective if we begin by recognizing that the most potent rewards for [teacher commitment] are intrinsic and symbolic rather than extrinsic and

material (p. 75).

Thus, such efforts should concentrate on the Intrinsic Motivation components of the Teacher Work Incentive model shown in Table 1.

To date, research seems to have supported aspects of the traditional intrinsic motivation position underlying the Mitchell & Peters (1988) model. Hackman & Oldham (1974) found that about two thirds of 150 teachers surveyed displayed a predominance of intrinsically motivated goals over extrinsically motivated goals, and that the former were significantly greater for teachers than for workers in industry. And Spuck (1974) found that teachers tended to stay in their jobs longer in schools where they experienced pride of workmanship and where social interaction was pleasant-- indicating that intrinsic motivation is important for the decision to continue in the profession.

Theoretical Issues

However, while these researchers have shown the relevance of intrinsic motivation factors for educators, their efforts have tended to contain a set of theoretically important limitations that renders their tests of the intrinsic motivation thesis less than definitive: As with the model presented by Mitchell and Peters (1988), they have

dealt with only two candidates as possible determinants of teacher commitment:

1. The presence or absence of a condition assumed to be highly rewarding; i.e., the satisfaction of intrinsically motivated goals, such as a sense of pride in personal accomplishments and involvement in exciting classroom experiences.

2. The presence or absence of a supposedly less potent (but in theory, still rewarding) condition; i.e., satisfaction of extrinsically motivated goals, such as merit pay and high salary.

Stipulation of these two variables alone has limited past efforts in the following way: as it stands, the two-variable paradigm fails to consider the role played by undesirable, aversive conditions in the learning setting, such as discipline problems and overcrowded classrooms. However, in attempting to determine what induces people to behave, or to avoid behaving, in given ways, motivation theory requires that both positive (rewarding) and negative (punitive) influences be taken into account (Gage & Berliner, 1986). As research on teacher burnout suggests, a teacher may consider leaving the profession due to the presence of aversive conditions (Russell, Altmaier & Van-Velzen, 1987;

Fimian, 1987), as well as to the absence of conditions that would satisfy intrinsically or extrinsically motivated goals.

To gain a more realistic perspective from which to test the intrinsic motivation position, then, the relative effects of both extrinsic/intrinsic motivators and aversive conditions should be examined. To this end, the frame of reference presented by Mitchell & Peters (1988) can be expanded as shown in Table 2. The Work Incentives section of this table remains the same as the Mitchell & Peters (1988) model, and contains the subdivisions proposed by them. The added Aversive Conditions part of this table consists of active aversive experiences that teachers may encounter in their teaching environment. The rows refer to the presence (+) or absence (-) of the conditions appearing in the columns.

A second set of conceptual issues that must be addressed before the intrinsic motivation position can be adequately evaluated is the following: a major assumption underlying this view is that teachers who are intrinsically motivated are more committed to their work than teachers who are extrinsically motivated. However, it may seem unrealistic to think of teachers as either intrinsically or extrinsically motivated. An alternative view can be that

each individual possesses both intrinsically and extrinsically motivated goals, both of which must be addressed if incentive efforts are to succeed. Thus, in the final analysis, the real question may not be which of the two types of motivation is the more potent for determining teacher commitment, but to what degree each type must be addressed to insure an optimal commitment level.

Consideration of these issues is important to more definitively test the intrinsic motivation position. If the satisfaction of extrinsically motivated goals and the absence of aversive conditions also contribute significantly to teacher commitment, then the position is weakened. If these other factors do not also contribute significantly to teacher involvement, then the intrinsic motivation position is strengthened.

Purpose

The purpose of this study was to test the intrinsic motivation view of teacher commitment, using the Expanded Teacher Work Incentive (ETWI) formulation derived from Mitchell & Peters (1988). The model components were examined to determine their relative contribution to teacher motivation. Specifically, the following questions were posed for investigation:

1. Is there a relationship between perceived satisfaction of intrinsically motivated goals in the workplace and teacher commitment to teaching?

2. Is there a relationship between perceived satisfaction of extrinsically motivated goals in the workplace and teacher commitment to teaching?

3. Is there a relationship between perception of aversive conditions in the workplace and teacher commitment to teaching?

4. What proportion of the variance in teacher commitment to teaching is explained by the variables comprising the Expanded Teacher Work Incentive (TWI) model?

5. What relative contribution does each variable in the ETWI model make to the proportion of the variance explained in teacher commitment?

6. Of secondary interest was the question, Is there a difference between levels of intrinsic and extrinsic motivation found in teachers?

7. Also of secondary interest was the question, Is there a difference in commitment to teaching between teachers with predominantly intrinsically motivated goals and teachers with predominantly extrinsically motivated goals?

For present purposes, "teacher commitment" was defined

as the intention to continue in the teaching profession. While other dimensions of commitment exist (e.g., quality of performance) intention to continue in the field is the most basic form commitment can take: the ability or potential for performing at a high level is useless if the individual leaves the profession. Also, this sense of the word, besides being relatively easy to quantify and measure, can be readily applied to new teachers, who have not yet had an opportunity to hone their teaching skills. In such cases, the most crucial issue regarding their commitment is the extent to which they want to stay involved in the teaching profession. Finally, it was felt that once the relationship is established between motivating factors and this fundamental form of commitment, relationships involving other forms can be more easily explored.

Methods and Procedure

Sample

The cluster-derived sample consisted of 100 elementary school teachers randomly selected from 20 elementary public schools in New York Metropolitan Area. These schools had in turn been randomly selected from a list of 50 schools in the area. Eighty nine subjects were female and eleven were male. Ages ranged between 21 and 61, with a mean of 33.80

and a standard deviation of 9.4.

Instrumentation

The instrument developed for this study consisted of four parts. Part I, Teacher's Motivation, was developed to assess the respondents' levels of intrinsic and extrinsic motivation. The participants were presented with a list of intrinsically- and extrinsically-oriented interests (see Table 3) derived from Mitchell & Peters (1988), and were instructed to respond as follows:

Below appear a number of conditions that schools may provide their teachers. To the left of each item, enter a value between 1 and 5 to indicate how important the condition is to you. Use the following scale to record your responses:

Not important	Extremely important
(Can do without it)	(Can't do without it)
<u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u>	

To obtain scores for intrinsic and extrinsic motivation, the sums were calculated separately for the responses to the intrinsically-oriented and extrinsically-oriented incentives presented in in this section of the instrument. This procedure yielded an Intrinsic Motivation

(IM) score and an Extrinsic Motivation (EM) score. Two-week test-retest stability reliability for the IM score was $r = .74$, $p < .05$, $N = 35$. For the EM score, two-week test-retest stability reliability was $r = .71$, $p < .05$, $N = 35$. These reliability tests, as well as those reported below, were conducted with 30 elementary school teachers not included in the present survey.

Part II, Work Incentive Prevalence, was developed to assess the respondents' perceptions of the extent to which their schools provide the intrinsically- and extrinsically-oriented incentives proposed by Mitchell & Peters (1987). Using the same list of incentives appearing in Part I, the participants responded to the following instructions:

Below, to the left of each item, enter a value between 1 and 5 to indicate the degree to which you feel the condition presented is being provided by your school. Use the following scale to record your responses:

				Extensively
Not provided				provided
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>

To obtain scores for the perceived degree to which the

participants' schools provide intrinsic and extrinsic incentives, the sums were separately calculated for the responses to the intrinsically-oriented and extrinsically-oriented items presented in this part of the instrument. This procedure yielded an Intrinsic Work Incentive Prevalence (IWIP) score and an Extrinsic Work Incentive Prevalence (EWIP) score. Two-week test-retest stability reliability for the IWIP subscale was $r = .77$, $p < .05$, $N = 35$. For the EWIP subscale, two-week test-retest stability reliability was $r = .75$, $p < .05$, $N = 35$.

Part III, Commitment to Teaching, was included to assess the degree to which the respondent is committed to a teaching career. It consists of the following question, to which the respondent answered on a five-point Likert-type scale:

How long do you intend to continue working in the teaching profession?

Responses to this question can range between 1, "Will leave teaching as soon as possible"; to 5, "Will never leave teaching (will retire as a teacher)". Two-week test-retest stability reliability for this measure was $r = .83$, $p < .05$, $N = 35$.

Part IV, Aversive Work Condition Prevalence, was developed to assess the respondents' perception of aversive

factors in his/her place of work. Previously, 100 teachers, different from those who were included in the present sample, were asked to list sources of frustration they encounter in their schools. They responded to the following open-ended question:

What are some major sources of frustration that you encounter in your work as a teacher?

Below, write down as many such sources as you can.

The responses to this question were collated, and those responses with the greater frequencies of occurrence were used to form a list of ten major aversive work conditions. The list, appearing in Table 4, was presented in Part IV of this instrument to the study's participants. They responded to the following instructions:

To the left of each item below, enter a value between 1 and 5 to indicate how much you feel the condition presented is found in the place where you work. Use the following scale to record your responses:

Not found in					Very prevalent in
my workplace					my workplace
1	2	3	4	5	

The responses to these items were summed to obtain an Aversive Work Condition Prevalence score. Two-week test-retest stability reliability for this measure was $r = .71$, $p < .05$, $N = 35$.

Method of Data Analysis

Research Questions 1 Through 5. To ascertain the relative effects of Intrinsic Work Incentive Prevalence, Extrinsic Work Incentive Prevalence and Aversive Work Condition Prevalence on Commitment to Teaching, the data were analyzed using path analysis procedures (Wright, 1934). Path analysis is a method for testing assumptions of causal relationships among several variables, while accounting for 1) indirect effects, given other, intervening variables; 2) the effects of other independent variables, and 3) the effects of other, antecedent variables. Because path analysis can test these effects simultaneously, it is considered a superior method for testing models such as that developed for the present study.

The path model posed for investigation appears in Figure 1. In this figure, each double-lined arrow represents a hypothesis to be tested, while each single-lined arrow represents a potentially confounding effect to be statistically controlled. Thus, Intrinsic Work Incentive

Prevalence, Extrinsic Work Incentive Prevalence and Aversive Work Condition Prevalence were hypothesized to affect Commitment to Teaching; and Age and Years Teaching were considered antecedent, possibly confounding variables, whose effects were to be statistically controlled.

Research Question 6. To ascertain whether differences in levels of intrinsic and extrinsic motivation existed among the participants, a t-test for two related samples was calculated between the respondents' Intrinsic Motivation and Extrinsic Motivation scores.

Research Question 7. To derive a subsample that could be characterized as either predominantly intrinsically motivated or predominantly extrinsically motivated, the sample medians were calculated for the Intrinsic Motivation (Median = 45) and Extrinsic Motivation (Median = 35) scores. Respondents scoring at or above the median for the intrinsic measure and below the median for the extrinsic measure were classified as 1 (High Intrinsic-Low Intrinsic); and respondents scoring at or above the median for the extrinsic measure and below the median for the intrinsic measure were classified as 2 (Low Intrinsic-High Extrinsic). Then, a t-test for two unrelated samples was calculated to determine whether differences in Commitment to

Teaching existed between the High Intrinsic-Low Extrinsic and Low Intrinsic-High Extrinsic groups. Originally, Number of Years Teaching and Age were used as covariates in an Analysis of Covariance procedure. However, neither of these measures proved effective covariates, and thus, the t-test was employed for this analysis.

Results

Path Analysis Outcomes (Research Questions 1 through 5)

Table 5 displays the means and standard deviations of the variables in the path model, and Table 6 displays the triangular correlation matrix for these variables. Figure 1 displays the path analysis outcomes. In this figure, the Pearson correlation coefficients appear inside parentheses, and the path coefficients (standardized regression weights) appear outside parentheses.

Examination of Figure 1 reveals that the following variables were significantly correlated with Commitment to Teaching: Intrinsic Work Incentive Prevalence (IWIP) ($r = .55, p < .05$), Aversive Work Condition Prevalence (AWCP) ($r = -.37, p < .05$) and Age ($r = .22, p < .05$). These correlations remained at significant levels after the other variables in the model were statistically controlled: The path coefficients (represented by p in this text) between

these variables and Commitment to Teaching were as follows: For IWIM, $\underline{p} = .52$, $p < .05$; for AWCP, $\underline{p} = -.23$, $p < .05$; and for Age, $\underline{p} = .19$, $p < .05$. Although a moderate, statistically significant Pearson correlation coefficient emerged between Extrinsic Work Incentive Prevalence and Commitment to Teaching, $\underline{r} = .27$, $p < .05$, this relationship did not remain statistically significant, $\underline{p} = -.08$, $p > .05$, after the effects of the other variables in the model were structurally controlled. Years Teaching was not significantly correlated with any other variable in the analysis.

These findings led to the reduction of the path structure into an essentially multiple regression model, IWIP, AWCP and Age serving as independent variables and Commitment to Teaching serving as the dependent variable. The reduced model appears in Figure 2. In this figure, the Pearson correlation coefficients appear inside parentheses, and the standardized regression weights, again represented by $\underline{B}$ in this discussion, appear outside parentheses. Examination of Figure 2 reveals that the regression model accounted for 36 percent of the variance in Commitment to Teaching ($\underline{R} = .60$, $p < .05$, $\underline{R}^2 = .36$). The major contributor to this variance was Intrinsic Work Incentive

Prevalence ($B = .47, p < .05$); followed by Aversive Work Condition Prevalence ($B = -.19, p < .05$); which was in turn closely followed by Age ($B = .18, p < .05$).

These outcomes offer evidence that the provision of intrinsically-oriented incentives in the school setting is crucial for the commitment of teachers to the educational enterprise. In this respect, they provide support for Spuck's (1974) finding that teachers tend to stay in their jobs longer in schools where the satisfaction of intrinsically motivated goals (e. g., pride in workmanship and pleasant social interactions) prevails. Just as importantly, however, these findings also show persuasive evidence that the perceived existence of extrinsically oriented incentives in the school has a negligible effect on teacher commitment. Thus, the outcomes also provide clear support for the position of Mitchell & Peters (1988) that intrinsically-oriented incentives are important determinants of teacher commitment, and that extrinsically-oriented incentives are not.

The negative relationship found between aversive conditions in the workplace and commitment to teaching provides further evidence in support of the literature on "teacher burnout", which has shown that aversive school

conditions culminate in the decision to leave the profession (Russell, Altmaier & Van-Velzen, 1987; Fimian, 1987). While the effect of this variable on teacher commitment was less than half as strong as that exerted by the perception of intrinsically-oriented incentives, the findings nevertheless point to the need to expand the teacher motivation model espoused by such workers as Mitchell & Peters (1988), to include aversive school conditions as well as intrinsic motivation factors. Implications of these findings for policy making are discussed below.

An additional finding worth noting is the significant negative correlation between Intrinsic Work Incentive Prevalence and Aversive Work Condition Prevalence, which was $r = -.39, p < .05$. It is interesting to compare this correlation with that between Extrinsic Work Incentive Prevalence and Aversive Work Condition Prevalence, which was $r = -.04, p > .05$. Clearly, the comparatively high correlation between the prevalence of intrinsic incentives and aversive conditions in the workplace merits further exploration. Several possibilities exist for explaining this significantly negative relationship:

1. The more the teacher perceives that intrinsically-oriented incentives are being provided in the school, the

less she/he tends to notice aversive conditions in the classroom.

2. The more the teacher notices aversive conditions in the classroom, the less she/he tends to notice intrinsically-oriented incentives provided by the school.

3. The negative effect between these two perceptions is reciprocal; which determines the other depends on which one has the greater salience for the teacher.

4. Most importantly, school administrations that provide predominantly intrinsically-oriented teacher incentives also do tend to minimize the occurrence of aversive conditions in the classroom. And school administrations that provide less intrinsically-oriented teacher incentives also tend to exert less effort in minimizing aversive conditions in the classroom.

Recommendations based on these hypotheses are presented below.

Differences in Levels of Intrinsic and Extrinsic Motivation
Found in Teachers (Research Question 6)

Research question 6 asked, Is there a difference between levels of intrinsic and extrinsic motivation found in teachers? For the present sample, the mean for Intrinsic Motivation was $\bar{M} = 44.58$, $SD = 5.25$. This mean was significantly greater, $t(98) = 15.37$, $p < .05$, than that for Extrinsic Motivation ($\bar{M} = 29.64$, $SD = 9.28$). The findings showed that the respondents were overwhelmingly more intrinsically than extrinsically motivated, thus providing support for the findings of Hackman & Oldham (1974) to this effect. However, it is worth noting that the extrinsic motivation mean for this sample was far from the lowest score possible¹, so that it must be concluded that, while the respondents were predominantly intrinsically motivated, they also possessed significant levels of extrinsic motivation. This finding left open the question of whether, in such cases, an individual with a higher level of intrinsic motivation will express greater commitment to teaching than an individual with a higher level of extrinsic motivation. This was the issue addressed by the next research question posed for investigation.

Difference in Commitment Between Predominantly Intrinsically-
and Predominantly Extrinsically-Motivated Teachers (Question
7)

Research Question 7 asked, Is there a significant difference in commitment to teaching between predominantly intrinsically-motivated teachers and predominantly extrinsically-motivated teachers? The t -test outcome revealed that respondents who were predominantly intrinsically-motivated (High Intrinsic-Low Extrinsic) scored slightly but significantly higher on Teacher Commitment ($M = 3.87$, $SD = .81$, $N = 16$) than did respondents who were predominantly extrinsically motivated ($M = 3.16$, $SD = 1.14$, $N = 13$, $t(27) = 1.99$, $p < .05$. Thus, this outcome offered evidence that individuals whose levels of intrinsic motivation are higher than their levels of extrinsic motivation tend to be slightly more committed to teaching than those for whom the opposite is true.

Discussion

The findings of this investigation have tended to support the intrinsic motivation position of teacher commitment, while also showing the need to consider the effects of aversive conditions in the school on teacher commitment. Although these findings have shown support for

the literature on intrinsic motivation and "teacher burnout", it is important to address a number of issues to determine the extent to which the outcomes can be generalized to conditions beyond those attending the present study.

Areas for Further Study

First, the sample for this investigation involved teachers in elementary public schools in New York City, and some questions related to the sample used remain to be answered: Are the findings generalizable to faculty at the early childhood, secondary and even post-secondary levels? Are they generalizable to other areas of the country or across ethnic groups and SES? And do they hold true for teachers in schools in the private sector?

In addition, the Teacher Motivation and Work Incentive Prevalence scales used for this study were based on the specific set of categories provided by the Mitchell & Peters (1988) model. Thus, an instrument-related question is, Will the findings be similar if open-ended questions are used to ascertain the types of intrinsically and extrinsically motivated goals of the respondents? Further research is needed to explore these sample- and instrument-related issues.

Finally, several hypotheses were formulated above for

explaining the negative relationship found between intrinsically-oriented incentives and aversive conditions found in the school. It is necessary to test these hypotheses to determine whether this important negative correlation is due a) to the perception of these occurrences on the teacher's part, b) to actual events as they tend to occur in the school, or c) to both of these conditions.

Summary Statements

Given these reservations, however, for the population at hand the results did tend to support the position of Mitchell and Peters (1988) that the most potent rewards for teacher commitment are intrinsic and symbolic rather than extrinsic and material.

While prior research has tended to support this position, to this writer's knowledge this is the first study to more thoroughly test the intrinsic motivation view of teacher commitment by examining the comparative effects of intrinsically-oriented incentives, extrinsically-oriented incentives and aversive conditions found in the school setting. While the findings did tend to support the Intrinsic Motivation stance, they also showed that, to more completely account for teacher motivation, it is necessary to consider the effects on this outcome variable of aversive

conditions and age, as well as those of the existence of intrinsically-oriented incentives.

In the light of the present findings, it seems important to reiterate the recommendation made by Waller (1932), Jackson (1968), Lortie (1975), Mitchell & Peters (1988) and others that efforts to insure the commitment of teachers to their profession concentrate less on extrinsically-oriented rewards and more on intrinsically-oriented incentives. This writer also feels compelled to add that, while the provision of intrinsic incentives is important for influencing teacher commitment, it is also incumbent upon school administrators to minimize the presence of aversive conditions in the classroom to more fully insure the commitment of teachers to the educational enterprise.

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Table 1
(a)
Teacher Work Incentive Model

		Individual	Group	Organizational
Enlarge Job Definitions	(b) E	Extra pay for extra work	Incentive funding for cooperative projects	Categorical district funding
	I	Interesting work, enjoyable working conditions	Exciting team- work on broad learning tasks	Identifica- tion with broad school vision
More effective Recruitment & Retention	E	High starting salaries, loans	Support for team teaching	Teacher core, inner city service pay
	I	Exciting classroom experiences & scholarships	Collegial relationships	Sharing in the goals of school & district
Professional Development	E	Evaluation- based promotions	Support for group training	Grants for staff development to school & district
	I	Expanded sense of competency	Shared sense of capacity for high-quality work	Participation in management & governance work
Accountability for Results	E	Merit pay	Team teaching performance bonus	Bonus payment for school/ district performance
	I	Pride in personal accomplishments	Strong sense of cooperative achievement	Pride in working for a high- performance school

(a)
From Mitchell & Peters (1988)

(b)
E= Extrinsic motivation
I= Intrinsic motivation

Table 2

Expanded Teacher Work Incentive (ETWI) Model

*

	Rewarding Conditions		Aversive Conditions
	Intrinsically-Oriented Incentives	Extrinsically-Oriented Incentives	
+			
-			

*

Adapted from Mitchell & Peters (1988)

Table 3

Intrinsic and Extrinsic Work Incentive Checklist

1. Extra pay for extra work
2. Interesting work, enjoyable working conditions *
3. Involvement in exciting classroom experiences *
4. High salary, loans, scholarships
5. Evaluation-based promotions
6. A high sense of competency *
7. A sense of pride in personal accomplishments *
8. Merit pay
9. Exciting teamwork on teaching projects *
10. Incentive pay for cooperative teaching projects
11. Support and encouragement for team teaching
12. Development of collegial relationships *
13. Shared sense of capacity for high-quality work *
14. Support for group training
15. Strong sense of effective teamwork *
16. Bonuses for performance in team teaching
17. A teacher corps that maintains high standards in the school
18. Sharing in the goals of school and district *
19. School grants for staff development
20. Teacher participation in management and governance *
21. School-wide bonus payments for high school performance
22. Pride in working for a high-performance school *

*
Intrinsic motivation item

Table 4

Teacher's Aversive Work Condition Checklist

1. Lack of supplies
 2. Lack of parental support
 3. Too much paperwork
 4. Classes that are too large
 5. Ineffective administration
 6. Discipline problems
 7. Unmmotivated students
 8. Students with low frustration levels
 9. Non-teaching duties
 10. Excessive competition among teachers
-

Table 5

Means and Standard Deviations of Model Variables

	Mean	SD
1. Age	33.80	9.40
2. Years teaching	9.37	8.70
3. Intrinsic Work Incentive Prevalence	29.53	9.49
3. Extrinsic Work Incentive Prevalence	15.74	6.70
4. Aversive Work Condition Prevalence	32.60	7.92
5. Commitment to Teaching	3.66	1.17

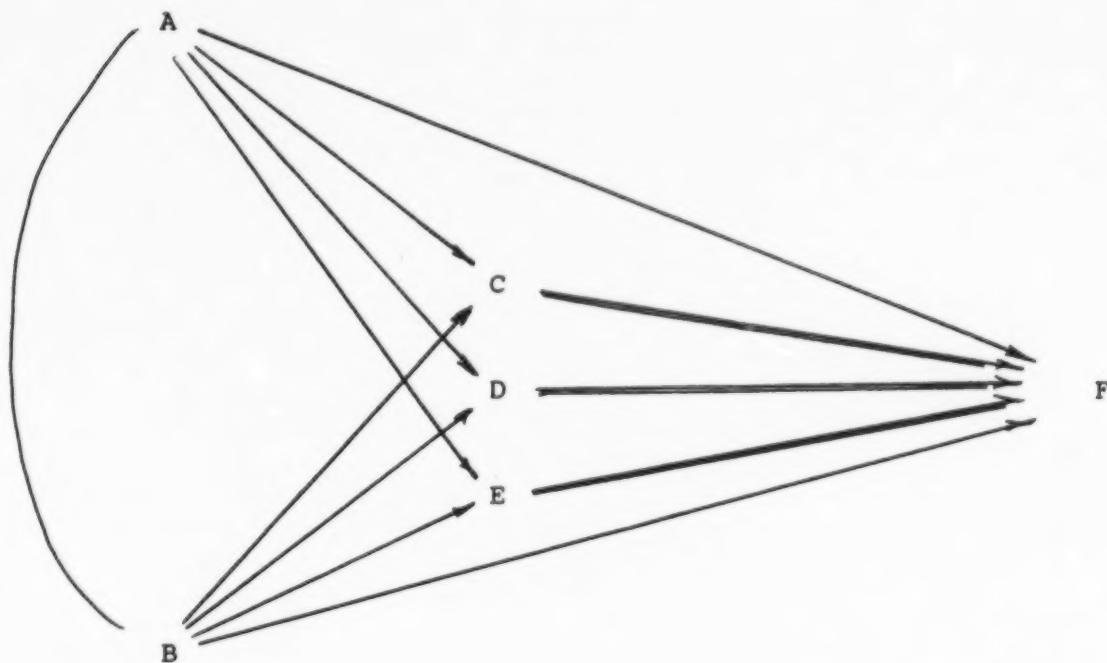
Table 6

Triangular Correlation Matrix of Path Model Variables

	1	2	3	4	5	6
1. Age	1	.52	-.01	.15	-.02	.22
2. Years teaching		1	-.13	.02	-.02	.10
3. Intrinsic Work Incentive Prevalence			1	.59	-.39	.55
4. Extrinsic Work Incentive Prevalence				1	-.04	.28
5. Aversive Work Condition Prevalence					1	-.42
6. Commitment to Teaching						1

Note: Correlations equal to or greater than .19 are significant beyond the .05 level (2-tailed test).

Figure 1
Path Model



A= Age

B= Years teaching

C= Intrinsic Work Incentive Prevalence

D = Extrinsic Work Incentive Prevalence

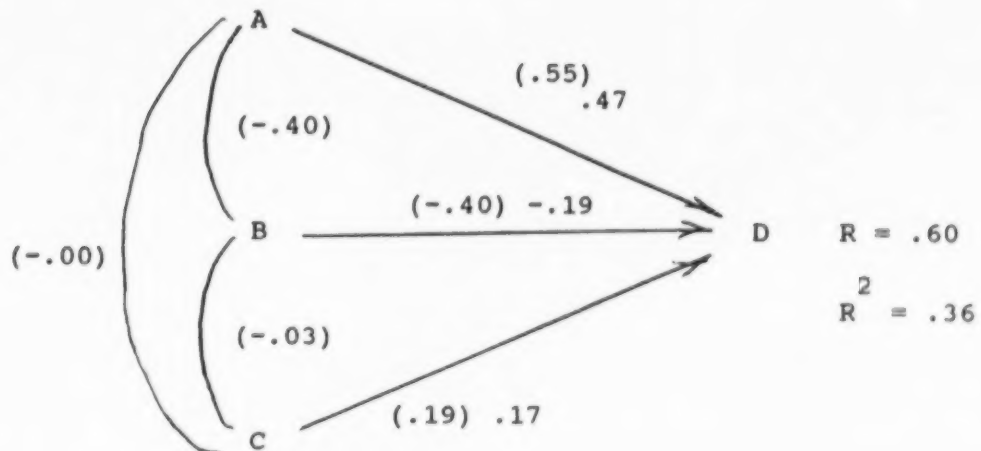
E = Aversive Work Condition Prevalence

F = Commitment to Teaching

*

p < .05

Figure 2
Reduced Regression Model



A = Intrinsic Work Incentive Prevalence
 B = Aversive Work Condition Prevalence
 C = Age
 D = Commitment to Teaching

Note: All coefficients are statistically significant beyond the .05 level.

Author Notes

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Footnotes

¹
The Likert scale used ranged between 1 and 5, and there were 11 items each for the intrinsic and extrinsic scale components. Thus, each motivation score could range between 11 and 55. A t-test for one sample for the extrinsic motivation mean ($\bar{M} = 29.64$) showed it to be significantly higher than 11, $t(98) = 19.99$, $p < .05$.